remissions in most patients as well as cures in a sizable proportion of those treated. The dramatic clinical responses are the result of collaborative efforts by tumor biologists, endocrinologists and clinical investigators interested in deciphering the puzzle of trophoblastic tumors.

The observations of occasional spontaneous complete remissions of choriocarcinoma as well as the relative sensitivity of this neoplasm to a whole host of chemotherapeutic agents of differing classes — antimetabolites, antibiotics, alkylating agents and plant alkaloids — distinguish it from all other human neoplasms. In view of the origin of choriocarcinoma from the placenta, which is derived from both parents, it is possible that certain factors of host resistance directed against transplantation antigens may also play a role in the oncolysis associated with chemotherapy.

Precise quantitation of those products of tumor cell metabolism which can serve as biologic indicators of occult neoplastic mass has proved to be of considerable importance to clinicians. The synthesis of gonadotropins is normally restricted to the pituitary and the placenta. Human tumors which have trophoblastic elements — choriocarcinomas, teratomas, and embryonal-cell carcinomas - are the most frequent neoplasms which can produce gonadotropins, although gonadotropic activity has also been found in four instances of bronchogenic carcinoma1 and several of hepatoma.4 Quantitation of human chorionic gonadotropin (HCG), initially by bioassay and recently by more sensitive immunoassay, has not only aided in diagnosis and staging of trophoblastic tumors but has provided guidelines for clinicians as to the relative efficacy of chemotherapy, and to the duration of therapy required to attain a probable cure in patients with responsive neoplasms.

Other disseminated neoplasms regularly elaborate metabolic products which can be precisely measured; for example, the paraproteins of multiple myeloma, steroid hormones by adrenal, ovarian and testicular neoplasms, acid phosphatase by prostatic carcinoma, and lysozyme in monocytic leukemia.<sup>3</sup> In these tumors, drug-induced remissions can also be monitored by falling levels of the secretory product; however, the product usually remains detectable albeit at reduced levels, and cures have yet to be observed with present forms of therapy. It can be anticipated that the list of human neoplasms which are found to regularly elaborate products that can be quantified, will

grow progressively. As additional forms of therapy become available to oncologists, studies of tumor products will undoubtedly play a central role more frequently in diagnosis, staging and "therapeutic titration." The concept of prolonged total suppression of tumor product secretion by chemotherapy — a concept which appears to be justified in choriocarcinoma — may well prove applicable in other forms of disseminated cancer.

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## A Third Force

RECENT EVENTS in the Medi-Cal program have focused attention on two separate value systems in health care. One system, which might be called humanitarian, is grounded in the premise that everyone is entitled to all the health care he needs and that the best of what modern medicine has to offer should be readily available to him when he needs it. The other, which might be called economic, recognizes that there will probably always be insufficient health care resources to meet this demand, and seeks to identify and make the most efficient use of what can be made available. Each of these value systems appears to have strong support from the public and there seems to be a general public expectation that somehow the aims of both will be accomplished.

Recent events suggest that if either of these value systems is neglected, public opinion will rally to its support. Indeed, proposals of severe restrictions in the Medi-Cal program evoked a hue and cry in support of humanitarian values; and at almost the same time widely publicized allegations of over-use and overcharging led to clear warnings

of strong public support for economic values, even though the allegations were almost immediately proved false.

California physicians find themselves generally in sympathy with the public desire that somehow the aims of both value systems be achieved in health care whether the auspices be public, private or some combination. The California Medical Association leadership has been gradually developing an appropriate role for organized medicine. The recent Council "Statement of Principle on Medi-Cal" (adopted by the Council 4 November 1967) decisively placed organized medicine in California in the role of a sympathetic and powerful advocate for the public's desire to realize the advantages of both the humanitarian and the economic value systems in health care. Implicit in this attitude is a recognition that each value system will have its own advocates who will advance their cause with whatever expertise and pressure they can bring to bear, and that therefore a third force of advocacy will be needed to achieve and maintain a reasonable balance between the two. It is also implicit in the Council's statement that the expertise and experience of the medical profession can and should become this third force. The CMA leadership is to be commended for taking this important step.

